State Maps and Prescriptive Packages

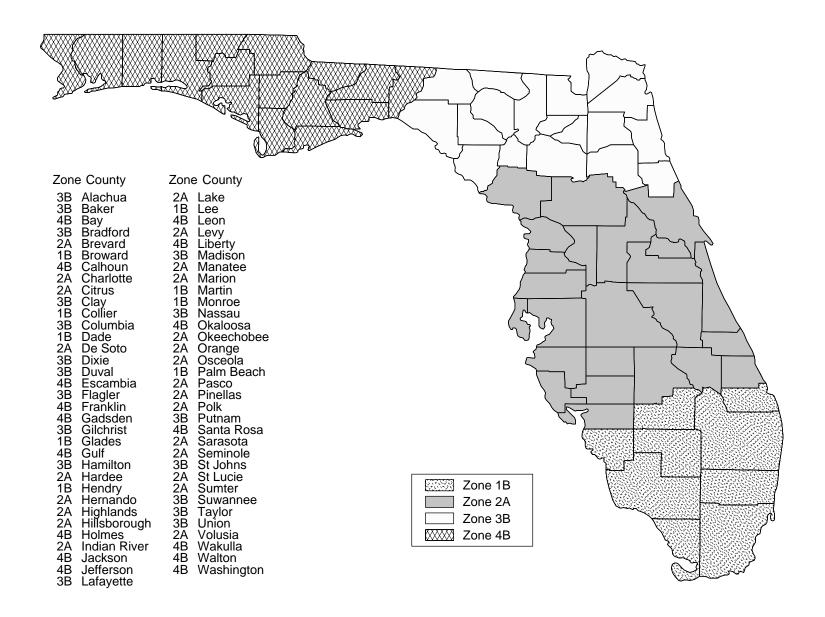
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The State Maps and Prescriptive Packages contain supporting materials that are needed when using the Envelope and Mechanical Compliance Guides. Insulation and other building envelope requirements and some mechanical system requirements vary by climate. The State Maps divide the United States into 33 different climate zones at a county level. Zones are numbered from 1 through 19 (consistent with the IECC and MEC*check* climate zones) and have a, b, and c designations to reflect climate differences that affect cooling; e.g., cooling degree days and solar radiation. The climate maps are unchanged from Version 1.

To determine the climate zone to use with your building, locate the map for your state and identify the zone number from the legend or county list.

To determine insulation and other building envelope requirements, find the prescriptive package number corresponding to your climate zone. The *Envelope Compliance Guide* employs a package approach that requires all components in your design to meet or exceed the prescribed efficiency levels contained in the prescriptive package. If you find the prescriptive packages too constraining, consider using the COM *check-EZ* software, which allows tradeoffs among building envelope components.

FLORIDA



Climate Zone 1b

Envelope Component	Low Fenestration Area (0-10% Window-Wall Ratio)				ım Fenestratio 25% Window-Wal			Fenestration		Very High Fenestration Area (40%-50% Window-Wall Ratio)			
	No	Metal	Wood	No .	Metal	Wood	No .	Metal	Wood	No .	Metal	Wood	
Walls (a)	Framing or		or Framing		ū	or Framing			or Framing	Framing		or Framing	
Framed Minimum R-Value	NA	0	0	NA	0	0	NA	0	0	NA	0	0	
Any Spacing CMU, 8 in. or greater Minimum R-Value	0	0	0	0	0	0	0	0	0	0	0	0	
with Integral Insulation(b)		U	· ·	1 "	U	٠	1 "	U	Ü	· ·	U	U	
All Other Minimum R-Value	0	0	0	0	0	0	0	0	0	0	0	0	
Masonry Walls(c)	Ŭ	·	·		·	·	Ĭ	•	· ·		•	·	
	No	3.25	3.5	No	3.25	3.5	No	3.25	3.5	No	3.25	3.5	
Windows	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	
Maximum Solar Heat Gain Coefficient		_								1			
Maniana II Faataa	Any	Any	Any	0.6	0.7	Any	0.5	0.6	0.7	0.4	0.5	0.7	
Maximum U-Factor	Any	Any	Any	Any	Any	Any	0.7	0.7	0.7	0.7	0.7	0.7	
	Ally	Ally	Ally	Ally	Ally	Ally	0.7	0.7	0.7	0.7	0.7	0.7	
Skylight (Limit 3% of Roof Area)													
Maximum U-Factor		1			1			1			1		
	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	
Roof	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss											-		
Minimum R-Value	14		19	14		19	14		19	14		19	
Nonwood Joist/Truss													
Minimum R-Value	15		19	15		19	15		19	15		19	
Concrete Slab or Deck													
Minimum R-Value	14		NA	14		NA	14		NA	14		NA	
Metal Purlin with Thermal Break	45		25	45		95	45		0.5	45		0.5	
Minimum R-Value Metal Purlin without Thermal Break	15		25	15		25	15		25	15		25	
Metal Purlin without Thermal Break Minimum R-Value	15		х	15		x	15		х	15		30	
William IV Value										•			
	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	
Floor	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss													
Minimum R-Value	0		0	0		0	0		0	0		0	
Nonwood Joist/Truss	_		_			_	1 _		_			_	
Minimum R-Value Concrete Slab or Deck	0		0	0		0	0		0	0		0	
Minimum R-Value	o		NA	0		NA	o		NA	0		NA	
with the value	<u> </u>		145			DIA .			195			1975	
Slab Edge or Basement Walls		Insulation		Insulation				Insulation		Insulation			
Minimum R-Value		0			0			0			0		

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material.
- (c) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more, lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.</p>

- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

Climate Zone 2a

Envelope Component	Low Fenestration Area (0-10% Window-Wall Ratio)					ım Fenestratio			n Fenestration		Very High Fenestration Area (40%-50% Window-Wall Ratio)			
		No	Metal	Wood	No	Metal	Wood	No	Metal	Wood	No	Metal	Wood	
Walls (a)		Framing of	r Framing	or Framing		or Framing	or Framing		or Framing	or Framing	Framing	or Framing	or Framing	
	Minimum R-Value	NA	0	0	NA	0	0	NA	0	0	NA	7	7	
Any Spacing CMU, 8 in. or greater	Minimum R-Value	0	0	0	0	0	0	0	0	0	0	0	0	
with Integral Insulation(b)	viiriiiriurii N-value	•	U	· ·		U	٠	ľ	U	U	Ů	U	U	
	Minimum R-Value	0	0	0	0	0	0	0	0	0	0	0	0	
Masonry Walls(c)														
		No	3.25	³.5	No	³.25	³.5	No	3.25	³.5	No	3.25	3.5	
Windows		Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	
Maximum Solar Heat	t Gain Coefficient													
		Any	Any	Any	0.5	0.6	0.7	0.4	0.5	0.6	0.4	0.5	0.6	
Ma	aximum U-Factor	Any	Any	Any	Any	Any	Any	0.7	0.7	0.7	0.7	0.7	0.7	
		Ally	Ally	Ally	Ally	Ally	Ally	0.1	0.1	0.7	0.7	0.1	0.7	
Skylight (Limit 3% of Roof Area)														
Ma	aximum U-Factor		1			1			1			1		
		Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous	•	Roof Cavity	
Roof		Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss														
	Minimum R-Value	13		19	13		19	13		19	13		19	
Nonwood Joist/Truss	Minimum R-Value	14		19	14		19	14		19	14		19	
Concrete Slab or Deck	Williman N-value	14		15	14		13	17		13	14		13	
	Minimum R-Value	13		NA	13		NA	13		NA	13		NA	
Metal Purlin with Thermal Break	dinimum D.Valua	44		40	44		19	44		40	44		19	
Metal Purlin without Thermal Break	Minimum R-Value	14		19	14		19	14		19	14		19	
	Minimum R-Value	14		x	14		x	14		x	14		25	
		Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	Continuous	•	Cavity	
Floor		Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss						-				20.00		-		
Λ	Minimum R-Value	0		0	0		0	0		0	0		0	
Nonwood Joist/Truss														
Concrete Slab or Deck	Minimum R-Value	4		11	4		11	4		11	4		11	
	Minimum R-Value	0		NA	0		NA	0		NA	0		NA	
Slab Edge or Basement Walls			Insulation			Insulation			Insulation			Insulation		
Λ	Minimum R-Value		0			0			0			0		

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material.
- (c) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more; lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.</p>

- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

Climate Zone 3b

Envelope Component		Fenestratior Window-Wall			ım Fenestratio 25% Window-Wal			Fenestration			High Fenestrati %-50% Window-Wa			
M-H- (-)		No Framing or	Metal Framing	Wood or Framing	No Framing	Metal or Framing	Wood or Framing	No Framing o	Metal or Framing	Wood or Framing	No Framing	Metal or Framing	Wood or Framing	
Walls (a) Framed	Minimum R-Value	Framing or NA	Framing 0	or Framing 0	Praming NA	or Framing (or Framing 0	NA NA	or Framing 0	or Framing 0	NA	or Framing	or Framing	
Any Spacing	wiiniinum K-vaiue	NA.	U	۰	NA.	Ü	۰	NA.	Ü	· ·	NA.	,	,	
CMU, 8 in. or greater with Integral Insulation(b)	Minimum R-Value	0	0	0	0	0	0	0	0	0	0	0	0	
All Other Masonry Walls(c)	Minimum R-Value	0	0	0	0	0	0	0	0	0	0	0	0	
Masoniy Wans(c)														
Windows		No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	
Maximum Solar F	leat Gain Coefficient	Amy	Any	Any	0.5	0.6	0.7	0.4	0.5	0.6	0.4	0.5	0.6	
	Maximum U-Factor	Any	Any	Any	0.5	0.6	0.7	0.4	0.5	0.6	0.4	0.5	0.0	
		Any	Any	Any	Any	Any	Any	0.7	0.7	0.7	0.7	0.7	0.7	
Skylight (Limit 3% of Roof Are	a)													
3 3 4	Maximum U-Factor		1			1			1			1		
		Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	
Roof		Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
All-Wood Joist/Truss	Minimum R-Value	12		19	12		19	12		19	12		19	
Nonwood Joist/Truss	Minimum R-Value	13		19	13		19	13		19	13		19	
Concrete Slab or Deck	Minimum R-Value	12		NA	12		NA	12		NA	12		NA	
Metal Purlin with Thermal Break		12						12			12			
Metal Purlin without Thermal Break	Minimum R-Value	13		19	13		19	13		19	13		19	
metai Fuliiii witiiout Thermai Break	Minimum R-Value	13		30	13		30	13		30	13		30	
Floor		Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	
All-Wood Joist/Truss	Minimum R-Value	4		11	4		11	4		11	4		11	
Nonwood Joist/Truss	Minimum R-value	4		- 11	4			4		11	4		- 11	
Concrete Slab or Deck	Minimum R-Value	4		11	4		11	4		11	4		11	
Series Stab St. Book	Minimum R-Value	2		NA	2		NA	2		NA	2		NA	
Slab Edge or Basement Walls			Insulation			Insulation			Insulation		Insulation			
	Minimum R-Value		0			0			0			0		

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material.
- (c) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more, lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.</p>

- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

Climate Zone 4b

Envelope Component	Low Fenestration Area (0-10% Window-Wall Ratio)				m Fenestratio			Fenestration		Very High Fenestration Area (40%-50% Window-Wall Ratio)			
M-II- (- 1)	No Framing	Metal	Wood or Framing	No	Metal	Wood	No	Metal	Wood	No	Metal	Wood	
Walls (a,b) Framed Minimum Cavity R-Value (c)	Framing o	or Framing	or Framing 11	Framing o	or Framing of	or Framing 11	Framing o	or Framing of	or Framing 11	Framing NA	or Framing	or Framing 11	
Any Spacing Minimum Continuous R-Value (d)	NA	0	0	NA	0	0	NA	0	0	NA	3	0	
CMU, 8 in. or greater Minimum Cavity R-Value with Integral Insulation(e) Minimum Continuous R-Value	NA 0	0	0	NA 0	0	0	NA 0	0	0	NA	0	0	
All Other Minimum Continuous R-Value Minimum Cavity R-Value	0 NA	0	0	0 NA	0 11	0 11	NA	<u> </u>	0 11	0 NA	0 11	0 11	
Masonry Walls(f) Minimum Continuous R-Value	0	0	0	5	0	0	5	0	0	5	0	0	
Windows	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	No Projection	3.25 Projection	3.5 Projection	
Maximum Solar Heat Gain Coefficient	Any	Any	Any	0.6	0.7	Any	0.4	0.5	0.6	0.4	0.5	0.6	
Maximum U-Factor	Any	Any	Any	Any	Any	Any	0.7	0.7	0.7	0.7	0.7	0.7	
Skylight (Limit 3% of Roof Area)													
Maximum U-Factor		1			1			1			1		
	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	
Roof All-Wood Joist/Truss	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
Minimum R-Value	16		19	16		19	16		19	16		19	
Nonwood Joist/Truss Minimum R-Value	17		25	17		25	17		25	17		25	
Concrete Slab or Deck Minimum R-Value	16		NA	16		NA	16		NA	16		NA	
Metal Purlin with Thermal Break Minimum R-Value	17		25	17		25	17		25	17		25	
Metal Purlin without Thermal Break Minimum R-Value	17		x	17		X	17		х	17		30	
iviiiiiiiiiii N-value	! !					-							
Floor	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	Continuous Insulation	or	Cavity Insulation	
All-Wood Joist/Truss Minimum R-Value	4		11	4		11	4		11	4		11	
Nonwood Joist/Truss Minimum R-Value	4		11	4		11	4		11	4		11	
Concrete Slab or Deck Minimum R-Value	1		NA NA	4		NA NA	4		NA NA	4		NA NA	
William IV Value			IVA	7		IUA			IVA			IVA	
Slab Edge or Basement Walls		Insulation			Insulation			Insulation			Insulation		
Minimum R-Value		0			0			0			0		

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Where values are shown for both cavity and continuous insulation, both requirements must be met.
- (c) Cavity insulation is insulation between framing members or furring strips and does not refer to integral insulation in CMUs.
- (d) Continuous insulation is insulation that is continuous across structural members, and its effectiveness is undimished by compression or bridging.
- (e) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material. Minimum R-values are in addition to insulation in CMU voids.
- (f) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more; lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.</p>
- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.